Journal of Nuclear Materials 148 (1987) 356–358
North-Holland, Amsterdam

AUTHOR INDEX

Agarwala, R.P., A.K. Dua and B.M. Pande, Characterization and deuterium ion bombardment behaviour of titanium carbide coatings 148 (1987) 204
Ansari, M.I., see Jung 148 (1987) 148
Applegate, D.S., see Goretta 148 (1987) 166
Arias, D., T. Palacios and C. Turrillo, Composition of precipitates present in Zircaloy-2 and 4 (Letter to the Editors) 148 (1987) 227
Ashida, K., K. Ichimura, M. Matsuyama and K. Watanabe, Thermal desorption of deuterium from graphite doped with iron 148 (1987) 217

Barbouth, N., see Talah 148 (1987) 61
Ben Shaban, A.I., see Chirkin 148 (1987) 171
Billone, M.C., see Goretta 148 (1987) 166
Birtcher, R.C., see Egusa 148 (1987) 43
Birtcher, R.C., see Egusa 148 (1987) 53
Brager, H.R., see Garner 148 (1987) 294
Brossa, F., see Schiller 148 (1987) 224
Buswell, J.T., see Worrall 148 (1987) 107
Buters, W.Th.M., J.H. Evans, A. Van Veen and A. Van den Beukel, A TEM study of helium trapping in cold worked single crystalline molybdenum 148 (1987) 17
Buykx, W.J., see Roberts 148 (1987) 353

Cambini, M., see Schiller 148 (1987) 224
Carlson, O.N., see Smith 148 (1987) 1
Cassidy, D.J., see Roberts 148 (1987) 353
Chirkin, A.V., N.R. Gajum, A.I. Ben Shaban and K. Kher Ramadan, On the anisotropy of zirconium and its alloys with niobium 148 (1987) 171
Cox, B., Pore structure in oxide films on irradiated and unirradiated zirconium alloys 148 (1987) 332

De Avillez, R.R., see Smith 148 (1987) 1
Dua, A.K., see Agarwala 148 (1987) 204

Egusa, S., M.A. Kirk and R.C. Birtcher, Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. I. Absorbed-dose calculation 148 (1987) 43
Egusa, S., M.A. Kirk and R.C. Birtcher, Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. II. Degradation of mechanical properties 148 (1987) 53
English, C.A., see Worrall 148 (1987) 107
Evans, J.H., see Buters 148 (1987) 17

Frank, W., see Woo 148 (1987) 121
Furtuna, I., see Glodeanu 148 (1987) 351

Gajum, N.R., see Chirkin 148 (1987) 171
Garner, F.A., D.L. Porter and B.J. Makenas, A third stage of irradiation creep involving its cessation at high neutron exposures 148 (1987) 279
Garner, F.A., The possible influence of order–disorder transformations on the swelling of 85Ni–15Cr nichrome alloy 148 (1987) 288
Garner, F.A., H.R. Brager, D.S. Gelles and J.M. McCarthy, Neutron irradiation of Fe–Mn, Fe–Cr–Mn and Fe–Cr–Ni alloys and an explanation of their differences in swelling behavior 148 (1987) 294
Gelles, D.S., Microstructural examination of several commercial alloys neutron irradiated to 100 dpa 148 (1987) 136
Gelles, D.S. and M.L. Hamilton, Effects of irradiation on low activation ferritic alloys 148 (1987) 272
Gelles, D.S., see Garner 148 (1987) 294
Glodeanu, F., I. Furtuna, A. Paraschiv and M. Paraschiv, Grain growth in high density UO_2 (Letter to the Editors) 148 (1987) 351
Gomay, Y., see Sukenobu 148 (1987) 66
Goretta, K.C., D.S. Applegate, R.B. Poeppel, M.C. Billone and J.L. Routbort, Deformation of polycrystalline Li_2O 148 (1987) 166
Gray, R.A., see Michel 148 (1987) 194

Hall, R.O.A., M.J. Mortimer and D.A. Mortimer, Surface energy measurements on UO_2 – A critical review 148 (1987) 237
Hamilton, M.L., see Gelles 148 (1987) 272
Hemmerich, J.L., see Lässer 148 (1987) 145
Hetherington, M.G., see Worrall 148 (1987) 107

Ichimura, K., see Ashida 148 (1987) 217
Ioka, I. and S. Yoda, Acoustic emission caused by reversed plastic deformation in polycrystalline graphite 148 (1987) 344

Joshi, J.K., see Vaidya 148 (1987) 324
Jung, P., M.I. Ansari, H. Klein and D. Meertens, Diffusion and γ'-precipitation in Ni(Al) alloys under proton irradiation 148 (1987) 148

Kamat, R.V., see Vaidya 148 (1987) 324
Kato, T., see Nakata 148 (1987) 185
Khatamian, D., see Stern 148 (1987) 257
Kher Ramadan, K., see Chirkin 148 (1987) 171
Kirk, M.A., see Egusa 148 (1987) 43
Kirk, M.A., see Egusa 148 (1987) 53
Klatt, K.-H., see Lässer 148 (1987) 145
Klein, H., see Jung 148 (1987) 148

Lässer, R., K.-H. Klatt, D. Triefenbach and J.L. Hemmerich, Tritium compatibility measurements of turbomolecular pump oil in a miniaturised viscosimeter 148 (1987) 145
Laursen, T., see Stern 148 (1987) 257
Lewis, B.J., Fission product release from nuclear fuel by recoil and knockout 148 (1987) 28
Lewis, L.A., see Stakebake 148 (1987) 115
Lewis, M.B., The importance of oxygen to helium–defect trapping in zirconium 148 (1987) 175
Lucas, G.E., see Odette 148 (1987) 22

Maeda, S., see Moriyama 148 (1987) 211
Maiti, R., see Odette 148 (1987) 22
Makenas, B.J., see Garner 148 (1987) 279
Marcus, P., see Talah 148 (1987) 61
Masaoka, I., see Nakata 148 (1987) 185
Masuda, S., see Suzuki 148 (1987) 230
Matsui, Y., see Suzuki 148 (1987) 230
Matsuyama, M., see Ashida 148 (1987) 217
McCarthy, J.M., see Garner 148 (1987) 294
McIlwain, A.K., see Solomah 148 (1987) 157
Meertens, D., see Jung 148 (1987) 148
Michel, D.J. and R.A. Gray, Effects of irradiation on the fracture toughness of FBR structural materials 148 (1987) 194
Morita, K., see Sukenobu 148 (1987) 66
Moritani, K., see Moriyama 148 (1987) 211
Moriyama, H., S. Maeda, T. Ohmura, K. Moritani and J. Oishi, Chemical behaviors of tritium formed in a $LiF–BeF_2$ mixture 148 (1987) 211
Mortimer, D.A., see Hall 148 (1987) 237
Mortimer, M.J., see Hall 148 (1987) 237
Mukerjee, S.K., see Vaidya 148 (1987) 324

Naidu, S.V., A. Sen Gupta and P. Sen, Positron annihilation studies on alpha-irradiated and deformed niobium 148 (1987) 86
Nakanishi, Y., see Suzuki 148 (1987) 230
Nakata, K., T. Kato and I. Masaoka, Void formation and precipitation during electron-irradiation in austenitic stainless steels modified with Ti, Zr and V 148 (1987) 185
Nandedkar, R.V., see Tyagi 148 (1987) 72
Nandedkar, R.V., see Tyagi 148 (1987) 76
Nichols, F.A., A simplified model for stable open porosity 148 (1987) 92

Odette, G.R., G.E. Lucas and R. Maiti, Microstructure–mechanical property relations in HT-9 148 (1987) 22
Ohmura, T., see Moriyama 148 (1987) 211
Ohno, H., see Sukenobu 148 (1987) 66
Ohno, K., see Suzuki 148 (1987) 230
Oishi, J., see Moriyama 148 (1987) 211

Palacios, T., see Arias 148 (1987) 227
Pande, B.M., see Agarwala 148 (1987) 204
Paraschiv, A., see Glodeanu 148 (1987) 351
Paraschiv, M., see Glodeanu 148 (1987) 351
Perz, J.M., see Stern 148 (1987) 257
Poeppel, R.B., see Goretta 148 (1987) 166
Porter, D.L., see Garner 148 (1987) 279

Quataert, D., see Schiller 148 (1987) 224

Richardson, P.G., see Solomah 148 (1987) 157
Richter, K. and C. Sari, Phase relationships in the neptunium–oxygen system 148 (1987) 266
Roberts, R.B., G.K. White, W.J. Buykx and D.J. Cassidy, Thermal expansion of Synroc minerals (Letter to the Editors) 148 (1987) 353
Ronchi, C., On diffusion and precipitation of gas-in-solid 148 (1987) 316
Routbort, J.L., see Goretta 148 (1987) 166

Sari, C., see Richter 148 (1987) 266
Schiller, P., D. Quataert, M. Cambini and F. Brossa, Structure of helium loaded stainless steel after short heat pulses (Letter to the Editors) 148 (1987) 224
Sen, P., see Naidu 148 (1987) 86
Sen Gupta, A., see Naidu 148 (1987) 86
Small, G.J., Densification of uranium dioxide at low burn-up 148 (1987) 302
Smith, G.D.W., see Worrall 148 (1987) 107
Smith, J.F., O.N. Carlson and R.R. De Avillez, The niobium–carbon system (review article) 148 (1987) 1
Solomah, A.G., P.G. Richardson and A.K. McIlwain, Phase identification, microstructural characterization, phase microanalyses and leaching performance evaluation of SYNROC-FA crystalline ceramic waste form 148 (1987) 157
Sood, D.D., see Vaidya 148 (1987) 324
Stakebake, J.L. and L.A. Lewis, Oxidation of plutonium–1 wt% gallium in nitrogen/5.5% oxygen atmospheres (Letter to the Editors) 148 (1987) 115

Stern, A., D. Khatamian, T. Laursen, G.C. Weatherly and J.M. Perz, Hydrogen and deuterium profiling at the surface of zirconium alloys. II. The effects of oxidation 148 (1987) 257
Stevens, M.F., An examination of twinning in α-neptunium 148 (1987) 99
Sukenobu, S., Y. Gomay, H. Ohno and K. Morita, Erosion yield of Ti from TiC-deposited graphite by hydrogen ion bombardment at high temperatures 148 (1987) 66
Suzuki, T., K. Ohno, S. Masuda, Y. Nakanishi and Y. Matsui, Effects of stagnant liquid rubidium and the Rb–5 wt% O system on a stainless steel at 473 K (Letter to the Editors) 148 (1987) 230

Talah, H., N. Barbouth and P. Marcus, Thermodynamic studies of the solubility and of the diffusion of sulfur in Ni–15Cr–10Fe alloy 148 (1987) 61
Triefenbach, D., see Lässer 148 (1987) 145
Turrillo, C., see Arias 148 (1987) 227
Tyagi, A.K. and R.V. Nandedkar, Hydrogen blistering and bubble formation in metallic glasses $Fe_{40}Ni_{40}P_{14}B_6$ and $Fe_{40}Ni_{38}Mo_4B_{18}$ 148 (1987) 72
Tyagi, A.K. and R.V. Nandedkar, Surface damage of metallic glasses by argon ion bombardment 148 (1987) 76

Vaidya, V.N., S.K. Mukerjee, J.K. Joshi, R.V. Kamat and D.D. Sood, A study of chemical parameters of the internal gelation based sol–gel process for uranium dioxide 148 (1987) 324
Van den Beukel, A., see Buters 148 (1987) 17
Van Veen, A., see Buters 148 (1987) 17

Watanabe, K., see Ashida 148 (1987) 217
Weatherly, G.C., see Stern 148 (1987) 257
White, G.K., see Roberts 148 (1987) 353
Woo, C.H. and W. Frank, The influence of temperature on void-lattice formation and swelling 148 (1987) 121
Worrall, G.M., J.T. Buswell, C.A. English, M.G. Hetherington and G.D.W. Smith, A study of the precipitation of copper particles in a ferrite matrix 148 (1987) 107

Yoda, S., see Ioka 148 (1987) 344

Journal of Nuclear Materials 148 (1987) 359–363
North-Holland, Amsterdam

SUBJECT INDEX

Actinides *(excl. Th, U, Pu)*
An examination of twinning in α-neptunium, M.F. Stevens 148 (1987) 99
Phase relationships in the neptunium–oxygen system, K. Richter and C. Sari 148 (1987) 266

Alloys *("Various" i.e. not listed elsewhere by name)*
The niobium–carbon system (review article), J.F. Smith, O.N. Carlson and R.R. De Avillez 148 (1987) 1
Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. I. Absorbed-dose calculation, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 43
Thermodynamic studies of the solubility and of the diffusion of sulfur in Ni–15Cr–10Fe alloy, H. Talah, N. Barbouth and P. Marcus 148 (1987) 61
Diffusion and γ′-precipitation in Ni(Al) alloys under proton irradiation, P. Jung, M.I. Ansari, H. Klein and D. Meertens 148 (1987) 148

Analytical Techniques
Composition of precipitates present in Zircaloy-2 and 4 (Letter to the Editors), D. Arias, T. Palacios and C. Turrillo 148 (1987) 227

Ceramics *("Various" i.e. not listed elsewhere by name)*
Erosion yield of Ti from TiC-deposited graphite by hydrogen ion bombardment at high temperatures, S. Sukenobu, Y. Gomay, H. Ohno and K. Morita 148 (1987) 66
A simplified model for stable open porosity, F.A. Nichols 148 (1987) 92
Phase identification, microstructural characterization, phase microanalyses and leaching performance evaluation of SYNROC-FA crystalline ceramic waste form, A.G. Solomah, P.G. Richardson and A.K. McIlwain 148 (1987) 157
Deformation of polycrystalline Li_2O, K.C. Goretta, D.S. Applegate, R.B. Poeppel, M.C. Billone and J.L. Routbort 148 (1987) 166
A study of chemical parameters of the internal gelation based sol–gel process for uranium dioxide, V.N. Vaidya, S.K. Mukerjee, J.K. Joshi, R.V. Kamat and D.D. Sood 148 (1987) 324
Pore structure in oxide films on irradiated and unirradiated zirconium alloys, B. Cox 148 (1987) 332
Thermal expansion of Synroc minerals (Letter to the Editors), R.B. Roberts, G.K. White, W.J. Buykx and D.J. Cassidy 148 (1987) 353

Coatings *(incl. Coated Particles)*
Characterization and deuterium ion bombardment behaviour of titanium carbide coatings, R.P. Agarwala, A.K. Dua and B.M. Pande 148 (1987) 204

Compatibility and Corrosion
Oxidation of plutonium–1 wt% gallium in nitrogen/5.5% oxygen atmospheres (Letter to the Editors), J.L. Stakebake and L.A. Lewis 148 (1987) 115
Tritium compatibility measurements of turbomolecular pump oil in a miniaturised viscosimeter, R. Lässer, K.-H. Klatt, D. Triefenbach and J.L. Hemmerich 148 (1987) 145
Effects of stagnant liquid rubidium and the Rb–5 wt% O system on a stainless steel at 473 K (Letter to the Editors), T. Suzuki, K. Ohno, S. Masuda, Y. Nakanishi and Y. Matsui 148 (1987) 230

Computer Calculations, including Modelling
The influence of temperature on void-lattice formation and swelling, C.H. Woo and W. Frank 148 (1987) 121

Constitution
Composition of precipitates present in Zircaloy-2 and 4 (Letter to the Editors), D. Arias, T. Palacios and C. Turrillo 148 (1987) 227
Phase relationships in the neptunium–oxygen system, K. Richter and C. Sari 148 (1987) 266

Creep and Relaxation
A third stage of irradiation creep involving its cessation at high neutron exposures, F.A. Garner, D.L. Porter and B.J. Makenas 148 (1987) 279

Crystallographic Properties
Phase identification, microstructural characterization, phase microanalyses and leaching performance evaluation of SYNROC-FA crystalline ceramic waste form, A.G. Solomah, P.G. Richardson and A.K. McIlwain 148 (1987) 157
On the anisotropy of zirconium and its alloys with niobium, A.V. Chirkin, N.R. Gajum, A.I. Ben Shaban and K. Kher Ramadan 148 (1987) 171

Defects and Defect Structures
Positron annihilation studies on alpha-irradiated and deformed niobium, S.V. Naidu, A. Sen Gupta and P. Sen 148 (1987) 86
The importance of oxygen to helium–defect trapping in zirconium, M.B. Lewis 148 (1987) 175

Diffusion *(incl. Thermodiffusion)*
Diffusion and γ'-precipitation in Ni(Al) alloys under proton irradiation, P. Jung, M.I. Ansari, H. Klein and D. Meertens 148 (1987) 148
On diffusion and precipitation of gas-in-solid, C. Ronchi 148 (1987) 316

Fatigue and Fracture
Effects of irradiation on the fracture toughness of FBR structural materials, D.J. Michel and R.A. Gray 148 (1987) 194

Fission Products
Fission product release from nuclear fuel by recoil and knockout, B.J. Lewis 148 (1987) 28

Fuel and Fuel Elements: Thermal Reactors
On diffusion and precipitation of gas-in-solid, C. Ronchi 148 (1987) 316
A study of chemical parameters of the internal gelation based sol–gel process for uranium dioxide, V.N. Vaidya, S.K. Mukerjee, J.K. Joshi, R.V. Kamat and D.D. Sood 148 (1987) 324
Grain growth in high density UO_2 (Letter to the Editors), F. Glodeanu, I. Furtuna, A. Paraschiv and M. Paraschiv 148 (1987) 351

Fusion Reactors: Blanket Materials *(incl. Lithium)*
Deformation of polycrystalline Li_2O, K.C. Goretta, D.S. Applegate, R.B. Poeppel, M.C. Billone and J.L. Routbort 148 (1987) 166
Chemical behaviors of tritium formed in a $LiF–BeF_2$ mixture, H. Moriyama, S. Maeda, T. Ohmura, K. Moritani and J. Oishi 148 (1987) 211

Fusion Reactors: Surface Effects
Microstructural examination of several commercial alloys neutron irradiated to 100 dpa, D.S. Gelles 148 (1987) 136
Characterization and deuterium ion bombardment behaviour of titanium carbide coatings, R.P. Agarwala, A.K. Dua and B.M. Pande 148 (1987) 204
Structure of helium loaded stainless steel after short heat pulses (Letter to the Editors), P. Schiller, D. Quataert, M. Cambini and F. Brossa 148 (1987) 224
Effects of irradiation on low activation ferritic alloys, D.S. Gelles and M.L. Hamilton 148 (1987) 272

Fusion Reactors: Structural Materials
Structure of helium loaded stainless steel after short heat pulses (Letter to the Editors), P. Schiller, D. Quataert, M. Cambini and F. Brossa 148 (1987) 224

Gases *(excl. Tritium)* **in Metals, Alloys and Ceramics**
A TEM study of helium trapping in cold worked single crystalline molybdenum, W.Th.M. Buters, J.H. Evans, A. Van Veen and A. Van den Beukel 148 (1987) 17
Surface damage of metallic glasses by argon ion bombardment, A.K. Tyagi and R.V. Nandedkar 148 (1987) 76
The importance of oxygen to helium–defect trapping in zirconium, M.B. Lewis 148 (1987) 175
Structure of helium loaded stainless steel after short heat pulses (Letter to the Editors), P. Schiller, D. Quataert, M. Cambini and F. Brossa 148 (1987) 224
On diffusion and precipitation of gas-in-solid, C. Ronchi 148 (1987) 316

Glasses and Amorphous Materials
Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. I. Absorbed-dose calculation, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 43
Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. II. Degradation of mechanical properties, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 53
Surface damage of metallic glasses by argon ion bombardment, A.K. Tyagi and R.V. Nandedkar 148 (1987) 76

Graphite and Carbon
Effects of neutron irradiation on polymer

matrix composites at 5 K and at room temperature. I. Absorbed-dose calculation, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 43
Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. II. Degradation of mechanical properties, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 53
Erosion yield of Ti from TiC-deposited graphite by hydrogen ion bombardment at high temperatures, S. Sukenobu, Y. Gomay, H. Ohno and K. Morita 148 (1987) 66
Thermal desorption of deuterium from graphite doped with iron, K. Ashida, K. Ichimura, M. Matsuyama and K. Watanabe 148 (1987) 217
Acoustic emission caused by reversed plastic deformation in polycrystalline graphite, I. Ioka and S. Yoda 148 (1987) 344

Hydrogen and Hydrides
Hydrogen blistering and bubble formation in metallic glasses $Fe_{40}Ni_{40}P_{14}B_6$ and $Fe_{40}Ni_{38}Mo_4B_{18}$, A.K. Tyagi and R.V. Nandedkar 148 (1987) 72
Hydrogen and deuterium profiling at the surface of zirconium alloys. II. The effects of oxidation, A. Stern, D. Khatamian, T. Laursen, G.C. Weatherly and J.M. Perz 148 (1987) 257

Iron and Iron Alloys *(see Steels)*
A study of the precipitation of copper particles in a ferrite matrix, G.M. Worrall, J.T. Buswell, C.A. English, M.G. Hetherington and G.D.W. Smith 148 (1987) 107

Irradiation Effects *(excl. Swelling and Voids)*
Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. I. Absorbed-dose calculation, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 43
Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. II. Degradation of mechanical properties, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 53
Erosion yield of Ti from TiC-deposited graphite by hydrogen ion bombardment at high temperatures, S. Sukenobu, Y. Gomay, H. Ohno and K. Morita 148 (1987) 66
Hydrogen blistering and bubble formation in metallic glasses $Fe_{40}Ni_{40}P_{14}B_6$ and $Fe_{40}Ni_{38}Mo_4B_{18}$, A.K. Tyagi and R.V. Nandedkar 148 (1987) 72
Surface damage of metallic glasses by argon ion bombardment, A.K. Tyagi and R.V. Nandedkar 148 (1987) 76
Positron annihilation studies on alpha-irradiated and deformed niobium, S.V. Naidu, A. Sen Gupta and P. Sen 148 (1987) 86
A study of the precipitation of copper particles in a ferrite matrix, G.M. Worrall, J.T. Buswell, C.A. English, M.G. Hetherington and G.D.W. Smith 148 (1987) 107
Microstructural examination of several commercial alloys neutron irradiated to 100 dpa, D.S. Gelles 148 (1987) 136
Diffusion and γ'-precipitation in Ni(Al) alloys under proton irradiation, P. Jung, M.I. Ansari, H. Klein and D. Meertens 148 (1987) 148
Void formation and precipitation during electron-irradiation in austenitic stainless steels modified with Ti, Zr and V, K. Nakata, T. Kato and I. Masaoka 148 (1987) 185
Effects of irradiation on the fracture toughness of FBR structural materials, D.J. Michel and R.A. Gray 148 (1987) 194
Characterization and deuterium ion bombardment behaviour of titanium carbide coatings, R.P. Agarwala, A.K. Dua and B.M. Pande 148 (1987) 204
Effects of irradiation on low activation ferritic alloys, D.S. Gelles and M.L. Hamilton 148 (1987) 272
A third stage of irradiation creep involving its cessation at high neutron exposures, F.A. Garner, D.L. Porter and B.J. Makenas 148 (1987) 279
Neutron irradiation of Fe–Mn, Fe–Cr–Mn and Fe–Cr–Ni alloys and an explanation of their differences in swelling behavior, F.A. Garner, H.R. Brager, D.S. Gelles and J.M. McCarthy 148 (1987) 294
Densification of uranium dioxide at low burn-up, G.J. Small 148 (1987) 302
Pore structure in oxide films on irradiated and unirradiated zirconium alloys, B. Cox 148 (1987) 332

Kinetics
Grain growth in high density UO_2 (Letter to the Editors), F. Glodeanu, I. Furtuna, A. Paraschiv and M. Paraschiv 148 (1987) 351

Liquid Metals
Effects of stagnant liquid rubidium and the Rb–5 wt% O system on a stainless steel at 473 K (Letter to the Editors), T. Suzuki, K. Ohno, S. Masuda, Y. Nakanishi and Y. Matsui 148 (1987) 230

Mechanical Properties
Microstructure–mechanical property rela-

tions in HT-9, G.R. Odette, G.E. Lucas and R. Maiti 148 (1987) 22
Effects of neutron irradiation on polymer matrix composites at 5 K and at room temperature. II. Degradation of mechanical properties, S. Egusa, M.A. Kirk and R.C. Birtcher 148 (1987) 53
Deformation of polycrystalline Li_2O, K.C. Goretta, D.S. Applegate, R.B. Poeppel, M.C. Billone and J.L. Routbort 148 (1987) 166
On the anisotropy of zirconium and its alloys with niobium, A.V. Chirkin, N.R. Gajum, A.I. Ben Shaban and K. Kher Ramadan 148 (1987) 171

Microstructure *(incl. Textures)*
Microstructure–mechanical property relations in HT-9, G.R. Odette, G.E. Lucas and R. Maiti 148 (1987) 22
An examination of twinning in α-neptunium, M.F. Stevens 148 (1987) 99
Microstructural examination of several commercial alloys neutron irradiated to 100 dpa, D.S. Gelles 148 (1987) 136
Phase identification, microstructural characterization, phase microanalyses and leaching performance evaluation of SYNROC-FA crystalline ceramic waste form, A.G. Solomah, P.G. Richardson and A.K. McIlwain 148 (1987) 157

Phase Transformations
The influence of temperature on void-lattice formation and swelling, C.H. Woo and W. Frank 148 (1987) 121
Diffusion and γ′-precipitation in Ni(Al) alloys under proton irradiation, P. Jung, M.I. Ansari, H. Klein and D. Meertens 148 (1987) 148
The possible influence of order–disorder transformations on the swelling of 85Ni–15Cr nichrome alloy, F.A. Garner 148 (1987) 288
Neutron irradiation of Fe–Mn, Fe–Cr–Mn and Fe–Cr–Ni alloys and an explanation of their differences in swelling behavior, F.A. Garner, H.R. Brager, D.S. Gelles and J.M. McCarthy 148 (1987) 294

Physical Properties
Acoustic emission caused by reversed plastic deformation in polycrystalline graphite, I. Ioka and S. Yoda 148 (1987) 344
Thermal expansion of Synroc minerals (Letter to the Editors), R.B. Roberts, G.K. White, W.J. Buykx and D.J. Cassidy 148 (1987) 353

Plutonium, Plutonium Alloys and Compounds
Oxidation of plutonium–1 wt% gallium in nitrogen/5.5% oxygen atmospheres (Letter to the Editors), J.L. Stakebake and L.A. Lewis 148 (1987) 115

Pore Behaviour
A simplified model for stable open porosity, F.A. Nichols 148 (1987) 92
On diffusion and precipitation of gas-in-solid, C. Ronchi 148 (1987) 316
Pore structure in oxide films on irradiated and unirradiated zirconium alloys, B. Cox 148 (1987) 332

Refractory Metals and Alloys *(excl. Zr)*
A TEM study of helium trapping in cold worked single crystalline molybdenum, W.Th.M. Buters, J.H. Evans, A. Van Veen and A. Van den Beukel 148 (1987) 17
Characterization and deuterium ion bombardment behaviour of titanium carbide coatings, R.P. Agarwala, A.K. Dua and B.M. Pande 148 (1987) 204

Steels
Microstructure–mechanical property relations in HT-9, G.R. Odette, G.E. Lucas and R. Maiti 148 (1987) 22
Microstructural examination of several commercial alloys neutron irradiated to 100 dpa, D.S. Gelles 148 (1987) 136
Void formation and precipitation during electron-irradiation in austenitic stainless steels modified with Ti, Zr and V, K. Nakata, T. Kato and I. Masaoka 148 (1987) 185
Effects of irradiation on the fracture toughness of FBR structural materials, D.J. Michel and R.A. Gray 148 (1987) 194
Effects of stagnant liquid rubidium and the Rb–5 wt% O system on a stainless steel at 473 K (Letter to the Editors), T. Suzuki, K. Ohno, S. Masuda, Y. Nakanishi and Y. Matsui 148 (1987) 230
Effects of irradiation on low activation ferritic alloys, D.S. Gelles and M.L. Hamilton 148 (1987) 272
A third stage of irradiation creep involving its cessation at high neutron exposures, F.A. Garner, D.L. Porter and B.J. Makenas 148 (1987) 279
The possible influence of order–disorder transformations on the swelling of 85Ni–15Cr nichrome alloy, F.A. Garner 148 (1987) 288
Neutron irradiation of Fe–Mn, Fe–Cr–Mn and Fe–Cr–Ni alloys and an explanation of their differences in swelling behavior, F.A. Garner, H.R. Brager, D.S. Gelles and J.M. McCarthy 148 (1987) 294

Swelling
The influence of temperature on void-lattice

formation and swelling, C.H. Woo and W. Frank 148 (1987) 121
A third stage of irradiation creep involving its cessation at high neutron exposures, F.A. Garner, D.L. Porter and B.J. Makenas 148 (1987) 279
Neutron irradiation of Fe–Mn, Fe–Cr–Mn and Fe–Cr–Ni alloys and an explanation of their differences in swelling behavior, F.A. Garner, H.R. Brager, D.S. Gelles and J.M. McCarthy 148 (1987) 294

Thermodynamic Properties
Thermodynamic studies of the solubility and of the diffusion of sulfur in Ni–15Cr–10Fe alloy, H. Talah, N. Barbouth and P. Marcus 148 (1987) 61
Surface energy measurements on UO_2 – A critical review, R.O.A. Hall, M.J. Mortimer and D.A. Mortimer 148 (1987) 237

Thermophysical Properties
Tritium compatibility measurements of turbomolecular pump oil in a miniaturised viscosimeter, R. Lässer, K.-H. Klatt, D. Triefenbach and J.L. Hemmerich 148 (1987) 145
Thermal desorption of deuterium from graphite doped with iron, K. Ashida, K. Ichimura, M. Matsuyama and K. Watanabe 148 (1987) 217

Tritium
Tritium compatibility measurements of turbomolecular pump oil in a miniaturised viscosimeter, R. Lässer, K.-H. Klatt, D. Triefenbach and J.L. Hemmerich 148 (1987) 145
Chemical behaviors of tritium formed in a $LiF–BeF_2$ mixture, H. Moriyama, S. Maeda, T. Ohmura, K. Moritani and J. Oishi 148 (1987) 211

Uranium Ceramics
Surface energy measurements on UO_2 – A critical review, R.O.A. Hall, M.J. Mortimer and D.A. Mortimer 148 (1987) 237
Densification of uranium dioxide at low burn-up, G.J. Small 148 (1987) 302
On diffusion and precipitation of gas-in-solid, C. Ronchi 148 (1987) 316
A study of chemical parameters of the internal gelation based sol–gel process for uranium dioxide, V.N. Vaidya, S.K. Mukerjee, J.K. Joshi, R.V. Kamat and D.D. Sood 148 (1987) 324
Grain growth in high density UO_2 (Letter to the Editors), F. Glodeanu, I. Furtuna, A. Paraschiv and M. Paraschiv 148 (1987) 351

Void Formation
The influence of temperature on void-lattice formation and swelling, C.H. Woo and W. Frank 148 (1987) 121

Wastes *(Radioactive)*
Phase identification, microstructural characterization, phase microanalyses and leaching performance evaluation of SYNROC-FA crystalline ceramic waste form, A.G. Solomah, P.G. Richardson and A.K. McIlwain 148 (1987) 157
Thermal expansion of Synroc minerals (Letter to the Editors), R.B. Roberts, G.K. White, W.J. Buykx and D.J. Cassidy 148 (1987) 353

Zirconium, Zirconium Alloys and Compounds
On the anisotropy of zirconium and its alloys with niobium, A.V. Chirkin, N.R. Gajum, A.I. Ben Shaban and K. Kher Ramadan 148 (1987) 171
The importance of oxygen to helium–defect trapping in zirconium, M.B. Lewis 148 (1987) 175
Composition of precipitates present in Zircaloy-2 and 4 (Letter to the Editors), D. Arias, T. Palacios and C. Turrillo 148 (1987) 227
Hydrogen and deuterium profiling at the surface of zirconium alloys. II. The effects of oxidation, A. Stern, D. Khatamian, T. Laursen, G.C. Weatherly and J.M. Perz 148 (1987) 257
Pore structure in oxide films on irradiated and unirradiated zirconium alloys, B. Cox 148 (1987) 332